

***LineUp With Math™* Alignment**  
**Academic Standards for Mathematics**

**2.1 Numbers, Number Systems and Number Relationships**

**2.1.8 Grade 8 Standard**

D. Apply ratio and proportion to mathematical problem situations involving distance, rate, time and similar triangles.

***LineUp With Math™* Activities**

--Use an interactive simulator plus calculation worksheets to apply proportional reasoning to identify and resolve distance, rate, time conflicts in air traffic control.

**2.3 Measurement and Estimation**

**2.3.8 Grade 8 Standard**

B. Solve rate problems (e.g., rate x time = distance, principal x interest rate = interest).

***LineUp With Math™* Activities**

--Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios.

D. Estimate, use and describe measures of distance, rate, perimeter, area, volume, weight, mass and angles.

--Predict and resolve aircraft conflicts and explain results of mathematical calculations and simulations.

-- Predict and plot the relative motion of two or more airplanes on given paths.

**2.4 Mathematical Reasoning and Connections**

**2.4.8 Grade 8 Standard**

F. Use measurements and statistics to quantify issues (e.g., in family, consumer science situations).

***LineUp With Math™* Activities**

--Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios.

**2.5 Mathematical Problem Solving and Communication**

**2.5.8 Grade 8 Standard**

C. Justify strategies and defend approaches used and conclusions reached.

***LineUp With Math™* Activities**

--Predict and resolve aircraft conflicts and explain results of mathematical calculations and simulations.

**2.11 Concepts of Calculus**

**2.11.8 Grade 8 Standard**

B. Describe the concept of unit rate, ratio and slope in the context of rate of change.

***LineUp With Math™* Activities**

--Use an interactive simulator plus calculation worksheets to model and resolve air traffic control conflicts.

--Identify and resolve distance, rate, time conflicts in air traffic control problems by varying plane speeds or changing plane routes.